Amendments to the Claims

1. (original) An automated transaction machine comprising:

a plurality of transaction function devices, wherein each transaction function device includes an associated device computer processor, wherein at least one device computer processor associated with a first transaction function device is operative responsive to being placed in operative connection with at least one other device computer processor associated with a second transaction function device, to cause the first transaction function device to become automatically interoperative with the second transaction function device, wherein the first transaction function device interacts with the second transaction function device in carrying out a financial transaction with the automated transaction machine.

2. (original) An automated transaction machine according to claim 1, and further comprising a network, wherein the network is in operative connection with at least one data store, wherein the data store includes a transaction function device driver, wherein the second transaction function device is operative responsive to the driver, wherein the first transaction function device interacts with the second transaction function device responsive to operation of the driver.

3. (original) An automated transaction machine according to claim 2, wherein the driver is a hardware independent software component that is operative in the device computer processor associated with the first transaction function device.

4. (original) An automated transaction machine according to claim 2, wherein the device computer processor associated with the second transaction function device is operative to cause the driver to be stored in the data store.

5. (original) An automated transaction machine according to claim 4, wherein the device computer processor associated with the first transaction function device is operative to acquire the driver from the data store.

6. (original) An automated transaction machine according to claim 2, wherein the device computer processor associated with the first transaction function device includes a virtual machine, wherein the driver is operative in the virtual machine.

7. (original) An automated transaction machine according to claim 2, wherein the driver includes a method that is operative to cause the second transaction function device to perform a portion of the transaction, wherein the device computer processor associated with the first transaction function device is operative to invoke the method.

8. (original) An automated transaction machine according to claim 1, wherein the device computer processor associated with the second transaction function device is operative to cause the first transaction function device perform a portion of the transaction responsive to a remote procedure call by the driver.

9. (original) An automated transaction machine according to claim 1, wherein the second transaction function device includes a sheet dispenser, and wherein the transaction includes the dispense of a sheet from the sheet dispenser.

10. (original) An automated financial transaction machine comprising a plurality of transaction function devices, wherein at least one of the transaction function devices includes a sheet dispenser, and wherein each one of the transaction function devices includes an associated device computer, and wherein at least one of the device computers is programmed so that operative connection of a first transaction function device to the machine automatically causes the first transaction function device to coordinate operation with at least one other transaction function device in carrying out a financial transaction which includes the dispense of at least one sheet from the sheet dispenser.

11. (original) An automated transaction machine according to claim 10, wherein each of the plurality of transaction function devices includes an associated transaction function device driver, wherein the first transaction function device is operative to coordinate operation with at least one other transaction function device responsive to at least one of the device drivers.

12. (original) An automated transaction machine comprising

       a network;

a computer processor in operative connection with the network;

a user interface software component operative in the computer processor;

a lookup service in operative connection with the network; and

at least one transaction service in operative connection with the network, wherein the transaction service includes a service proxy software component, wherein the transaction service is operative to send a first copy of the service proxy to the lookup service, and wherein the user interface software component is operative to cause the computer processor to acquire a second copy of the service proxy from the lookup service, wherein the second copy of the service proxy is operative responsive to the user interface software component to cause the transaction service to operate to cause the machine to perform a transaction function.

13. (original) An automated transaction machine according to claim 12, wherein the transaction service includes a transaction device.

14. (original) An automated transaction machine according to claim 13, wherein the transaction device includes a sheet dispenser, wherein the transaction function includes dispensing at least one sheet.

15. (original) An automated transaction machine according to claim 13 wherein the transaction device includes a printer, and wherein the transaction function includes printing at least one document.

16. (original) An automated transaction machine according to claim 13 wherein the transaction device includes a reading device, and wherein the transaction function includes reading with the reading device.

17. (original) An automated transaction machine according to claim 13 wherein the transaction device includes an item accepting device, and wherein the transaction function includes accepting an item with the item accepting device.

18. (original) An automated transaction machine according to claim 12, wherein the transaction service is operative to send a discovery request message to the lookup service; wherein the lookup service is operative to send a discovery response message to the transaction service responsive to the discovery request message, and wherein the transaction service sends the first copy of the service proxy to the lookup service responsive to the discovery response message, whereby the transaction service is operative to register with the lookup service.

19. (original) An automated transaction machine according to claim 18, wherein the discovery request message includes the IP address of the transaction service, and wherein the discovery response message includes the IP address of the lookup service.

20. (original) An automated transaction machine according to claim 18, wherein the transaction service is operative to send the discovery request message proximate in time to when the transaction service is first connected to the network.

21. (original) An automated transaction machine according to claim 12, wherein the user interface software component is operative to send the lookup service a lookup search message, and wherein the lookup service is operative to send the second copy of the service proxy to the computer processor responsive to the lookup search message.

22. (original) An automated transaction machine according to claim 12, wherein the user interface software component includes a user interface service, and wherein the lookup service is in operative connection with a data store, wherein the data store includes the first copy of the service proxy and a first copy of a user interface service proxy that corresponds to the user interface service, wherein the transaction service is operative to cause a computer processor to acquire a second copy of the user interface service proxy, wherein the second copy of the user interface service proxy is operative responsive to the transaction service to cause the user interface service to operate to cause the machine to perform a user interface function.

23. (original) An automated transaction machine according to claim 22 wherein the automated transaction machine includes a display, and wherein the user interface function includes providing an output through the display.

24. (original) An automated transaction machine according to claim 22 wherein the automated transaction machine includes an input device, and wherein the user interface function includes enabling receipt of an input through the input device.

25. (original) A method comprising the steps of:

(a)   connecting a transaction service in an automated transaction machine, wherein the transaction service includes at least one transaction function device, and wherein the automated transaction machine includes a lookup service and an input service including at least one input device;

(b)   registering the transaction service with the lookup service, including storing a copy of a service proxy in association with the lookup service;

(c)   acquiring for use in association with the interface service, a copy of the service proxy from the lookup service;

(d)   providing at least one input to the input device;

(e)   invoking a method of the service proxy through operation of the interface service responsive to the at least one input;

(f) operating the transaction function device of the transaction service responsive to the method invoked.

26. (original) The method according to claim 25 wherein the transaction device includes a sheet dispenser and wherein in step (f) the sheet dispenser is operative to dispense at least one sheet.

27. (original) The method according to claim 25 wherein the transaction device includes a printer, and wherein in step (f) the printer is operative to print at least one document.

28. (original) The method according to claim 25 wherein the transaction device includes a card interface device and wherein in step (f) the card interface device is operative to change the amount of value stored on a smart card.

29. (original) The method according to claim 25 wherein the transaction device includes a medication dispenser, and wherein in step (f) the medication dispenser is operative to dispense at least one medical item.

30. (currently amended) A method comprising the steps of:

(a) connecting a first transaction service in an automated transaction machine, wherein the first transaction service includes a first processor and a first transaction function device;

(b)   responsive to performance of step (a), automatically providing a second

transaction service in the machine <u>having</u> a capability of affecting operation of the

first transaction service, wherein the second transaction service includes a second

processor and a second transaction function device, and wherein the capability is

provided responsive to operation of the first and second processors prior to

carrying out a financial transaction with the machine;

(c)   carrying out the financial transaction with the machine wherein operation of one

of either the first or second transaction function devices affects operation of the

other of the first or second transaction function devices.

31. (original) The method according to claim 30, wherein the first transaction function device

includes a sheet dispenser and the second transaction function device includes an input device,

and wherein step (c) comprises providing at least one input to the input device, and dispensing at

least one sheet from the sheet dispenser responsive to the at least one input.

32. (original) A method comprising the steps of:

a)   connecting a transaction service component to an automated transaction machine,

wherein the automated transaction machine includes a lookup service and a user

interface component;

b)   sending a first message from the transaction service component to the lookup service;

c)   sending a second message from the lookup service to the transaction service component responsive to the first message;

d)   registering the transaction service component with the lookup service responsive to the second message, including sending a first copy of a service proxy to the lookup service;

e)   acquiring with the user interface component a second copy of the service proxy from the lookup service;

f)   invoking a transaction method of the service proxy with the user interface component; and

g)   performing a transaction function with the machine through operation of the transaction service component responsive to the transaction method.

33. (original) The method according to claim 32, wherein step (g) includes returning an operational status of the transaction service component to the user interface component.

34. (original) The method according to claim 32, wherein the transaction service component includes a sheet dispensing device, and wherein step (g) includes dispensing a sheet from the dispensing device.

35. (original) The method according to claim 34, wherein step (e) includes sending a third message to the lookup service from the user interface component, and sending the second copy of the service proxy from the lookup service to the user interface component responsive to the third message.

36. (original) An automated transaction machine comprising:

a transaction service including:

a processor;

a transaction device in operative connection with the processor; and

a service proxy software component in operative connection with the processor,

wherein the processor is operative to register with at least one other service in the automated transaction machine, wherein the processor is operative to cause a copy

of a service proxy to be delivered to the at least one other service, and wherein the
service proxy in the at least one other service is operative to cause at least one
command to the processor, wherein the processor is operative responsive to the
command to cause the transaction device perform a transaction function.

37. (original) An automated transaction machine according to claim 36, wherein the transaction
device is a card reader, and wherein the transaction function includes reading an account number
from a card.

38. (currently amended) An automated transaction machine according to claim 36, wherein the
service proxy is operative in a Java Virtual Machine (JVM) JVM of the automated transaction
machine.

39. (original) An automated transaction machine according to claim 36, wherein the processor is
operative to register with the at least one other service responsive to the processor receiving a
discovery announcement message from the at least one other service.

40. (original) An automated transaction machine according to claim 36, wherein the automated
transaction machine comprises a lookup service and wherein the processor is operative to cause
the service proxy to register with the lookup service.

41. (original) An automated transaction machine according to claim 36, wherein the transaction device includes a sheet dispenser, and wherein the transaction function includes dispensing a sheet from the sheet dispenser.

42. (original) An automated transaction machine comprising:

a processor, wherein the processor is in operative connection with a lookup service and a transaction service through a network and wherein the lookup service includes a service proxy of the transaction service;

a data store in operative connection with the processor,

an application software component operative in the processor, wherein the application software component is operative to cause the processor to send the lookup service a lookup search message, wherein the application software component is operative to cause the processor to receive a copy of the service proxy from the lookup service responsive to the lookup search message, and wherein the application software component is operative to cause the copy of the service proxy to be stored in the data store, and wherein the application software component is operative to invoke at least one method of the copy of the service proxy, the method being operative to cause the transaction service to cause the machine to perform a transaction function.

43. (original) An automated transaction machine according to claim 42, wherein the transaction service includes a sheet dispenser device, wherein the transaction function includes dispensing at least one sheet from the sheet dispenser device, wherein the application software component is operative to cause the sheet dispenser device to dispense at least one sheet responsive to the application software component invoking a sheet dispense method of the service proxy.

44. (previously presented) An automated transaction machine system comprising:

a processor, wherein the processor is operative to communicate with a host that includes at least one service, wherein the processor is operative to acquire from the host a copy of a first service proxy that originates from the at least one service, wherein when the first service proxy is acquired the first service proxy is operative in the processor; and

a data store in operative connection with the processor, wherein the data store includes account information corresponding to at least one account, wherein the processor is operative responsive to the first service proxy to cause the at least one service to perform a transaction function responsive to the account information.

45. (original) The system according to claim 44, and further comprising an input device in operative connection with the processor, and wherein the data store further includes password information, and wherein responsive to at least one input of validating data through the input device the processor is operative to determine if the input corresponds to the password

information, wherein when the processor determines that the input corresponds to the password information, the processor is operative responsive to the first service proxy to cause the service to perform the transaction function.

46. (original) The system according to claim 45, wherein the service includes the input device.

47. (original) The system according to claim 44, and further comprising a second service proxy in operative connection with the processor, wherein the processor is operative to cause a copy of the second service proxy to be received by the service, wherein the service is operative responsive to the copy of the second service proxy to cause the processor to perform a further function.

48. (original) The system according to claim 47, wherein the data store includes password information, and wherein the further function performed by the processor includes determining if validating data input through an input device corresponds to the password information.

49. (original) The system according to claim 47, wherein the further function performed by the processor includes causing account information to be delivered to the service.

50. (original) The system according to claim 44, and further comprising a virtual machine operative in the processor, wherein the first service proxy is operative in the virtual machine.

51. (original) The system according to claim 44, wherein the service includes at least one transaction function device, and wherein the transaction function includes operation of the transaction function device.

52. (original) The system according to claim 51, wherein the transaction function device includes a cash dispenser device, wherein the transaction function includes the dispense of cash from the cash dispenser device.

53. (original) The system according to claim 44, and further comprising an input device and a display device in operative connection with the processor, wherein the processor is operative responsive to the first service proxy to cause output of an interface menu through the display device, and wherein the processor is operative responsive to the first service proxy and at least one input to the input device to cause the service to perform the transaction function.

54. (original) The system according to claim 53 and further comprising a browser operative in the processor, wherein the browser is operative to cause output of the interface menu through the display device.

55. (original) The system according to claim 54 and further comprising a plurality of interface instruction pages in operative connection with the processor, and wherein the browser is operative to cause output of the interface menu responsive to at least one of the interface instruction pages.

56. (original) The system according to claim 55, wherein at least one of the instruction pages includes XML instructions.

57. (previously presented) The system according to claim 44 and further comprising:

a display device in operative connection with the processor;

an input device in operative connection with the processor, wherein the first service proxy includes a transaction service proxy, wherein when the processor is placed in operative communication with the host, the processor is operative to output an interface menu through the display device responsive to the acquired transaction service proxy, wherein the interface menu includes user interface indicia corresponding to at least one transaction function that the host is operative to perform, and wherein the processor is operative responsive to at least one input through the input device that corresponds to the user interface indicia, the account information, and the transaction service proxy, to cause the host to perform at least one transaction function that corresponds to the user interface indicia.

58. (original) The system according to claim 57, wherein the data store includes data representative of a password information, wherein the processor is operative responsive to an input of validating data through the input device to determine if the validating data corresponds to the password information, and responsive to a determination of such correspondence the

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processor is operative responsive to the transaction service proxy to cause the host to perform a transaction function.

59. (original) The system according to claim 57 and further comprising a browser operative in the processor and wherein the host includes at least one interface page, and wherein the browser is operative to cause output of the interface menu through the display device responsive to at least one interface page received by the processor from the host.

60. (original) The system according to claim 59, wherein the transaction service proxy is operative to cause the processor to receive interface pages from the host responsive to a resolution characteristic of the display device.

61. (previously presented) The system according to claim 57 and further comprising a host, wherein the host includes data representative of purchase information and wherein the processor is operative responsive to the transaction service proxy to cause the purchase information to be retrieved from the host, wherein the processor is operative to cause output of purchase indicia corresponding to the purchase information through the display device, and wherein the processor is operative responsive to the transaction service proxy and a second input through the input device that corresponds to the purchase indicia to cause the host to perform the transaction function.

62. (original) The system according to claim 61, wherein the transaction function performed by the host includes charging an account responsive to the account information for an amount of value that corresponds to purchase information.

63. (original) The system according to claim 62, wherein the purchase indicia output through the display device includes a prompt to validate the amount of value.

64. (original) The system according to claim 63 wherein the purchase indicia output through the display device includes a description of an item being purchased.

65. (original) The system according to claim 62, wherein the purchase indicia includes a listing of items available to purchase, and wherein the second input corresponds to at least one item in the listing.

66. (previously presented) The system according to claim 44

and further comprising a personal portable device, wherein the personal portable device includes the processor and the data store,

and further comprising a host, wherein the host includes an automated teller machine (ATM), wherein the ATM includes a cash dispenser, wherein the transaction function

includes a dispense of cash from the ATM, and wherein the processor is operative

responsive to the first service proxy to cause the ATM to operate the cash dispenser.

67. (original) A method comprising the steps of:

      (a)   operatively connecting a personal automated transaction machine and a

            host system;

      (b)   receiving with the machine at least one transaction service proxy from the

            host system, wherein the transaction service proxy corresponds to a

            transaction service of the host system;

      (c)   outputting a user interface menu through an output device that includes

            indicia corresponding to at least one selectable transaction function that

            the transaction service is operative to perform;

      (d)   providing an input through an input device that corresponds to a selected

            transaction function;

      (e)   acquiring account information from a data store in the machine; and

(f)   performing the selected transaction function through operation of the host responsive to the transaction service proxy and the account information.

68. (original) The method according to claim 67 and prior to step (d) further comprising the steps of:

(g)   displaying a prompt for a user to enter a password;

(h)   receiving an input that corresponds to a user entered password; and

(i)   validating that the user entered password corresponds to a password value stored in the data store.

69. (original) The method according to claim 67 and further comprising the steps of:

(g)   receiving with the machine an event notification message from the transaction service that includes a status indicative of the outcome of the performed transaction function; and

(h)   displaying event indicia through the output device that corresponds to the event notification message.

70. (original) The method according to claim 67, wherein in step (d) the selected transaction function includes dispensing cash, and wherein in step (f) the transaction service is operative to cause cash to be dispensed from a cash dispenser.

71. (original) The method according to claim 67, wherein in step (d) the selected transaction function includes charging an account that corresponds to the account information for a purchase, and wherein in step (f) the transaction service is operative to cause the account to be charged for the purchase.

72. (original) The method according to claim 67 wherein the host includes a terminal including a cash dispenser, and wherein in step (d) the selected transaction function includes a dispense of cash and wherein in step (f) cash is dispensed by the cash dispenser.

73. (original) The method according to claim 67 wherein the host includes a terminal including a printing device, and wherein in step (d) the selected transaction function includes printing a document, and wherein in step (f) a document is printed by the printing device.

74. (original) The method according to claim 67 wherein the host includes a terminal, and wherein in step (c) the output is provided through an output device on the terminal.

75. (original) The method according to claim 67 wherein the host includes a terminal and wherein the machine includes the output device and the input device, and wherein in step (c) the menu is output through the output device on the machine, in step (d) the input is provided through the input device on the machine and in step (f) the transaction function is performed through operation of the terminal.

76. (original) The method according to claim 67 wherein the host includes a terminal and wherein the terminal includes the input device, and wherein in step (d) the input is provided through the input device on the terminal.

77. (original) A method comprising the steps of:

   (a)   placing in operative connection a portable personal automated transaction machine and a host terminal, the host terminal including at least one transaction service, the transaction service including a sheet dispenser;

   (b)   receiving with the machine, a transaction service proxy from the host terminal, the transaction service proxy corresponding to the transaction service;

   (c)   dispensing at least one sheet from the sheet dispenser in the host terminal responsive to operation of the transaction service proxy in the machine.